

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a computer system that uses ~~dynamic-hypertext-a~~ markup language (~~DHTML~~)-with a behavior component that enhances an element's initial behavior, a method of synchronously binding the behavior component to the element in order to prevent the behavior from being detached there from, ~~and to~~ promote predictability in the behavior, or reduce the need to add event-handling functions to check to see if the component has been downloaded and initialized, the method comprising:

receiving at a browser application a page for processing and displaying one or more elements therein;

upon an initial automatic parsing of the page, processing from within the page an import instruction that links implementation of an element behavior with an element from the one or more elements of the page, wherein the element behavior is ~~a DHTML component that~~ encapsulates specific functionality or behavior for the element upon the pagedisplay; and

upon parsing of the import instruction, producing instances of the element behavior for the element in the page making the specific functionality immediately and declaratively available~~modifying an initial behavior of the one or more elements within the page by instantiating an instance of the element behavior component in accordance with the import instruction when a part of the page corresponding thereto is parsed by the browser, which synchronously binds the element behavior component to the one or more elements.~~

2. (Original) The method of claim 1, wherein the element is associated with a namespace in the page.

3. (Previously Presented) The method of claim 2, wherein the element behavior component comprises a name for creating a custom element that may be linked to the behavior component, and wherein a syntax for the element comprises a reference to the name.

4. (Original) The method of claim 3, wherein the syntax for the element further comprises a reference to the namespace.

5. (Previously Presented) The method of claim 1, wherein the element behavior component comprises a name for creating a custom element that may be linked to the element behavior component, and wherein a syntax for the element comprises a reference to the name.

6. (Previously Presented) The method of claim 1, wherein the element behavior component is instantiated in accordance with a thread, and wherein the import instruction causes at least one other thread to cease while instantiating the element behavior component.

7. (Canceled)

8. (Canceled)

9. (Previously Presented) The method of claim 1, wherein the element behavior component comprises content, and wherein instantiating the behavior component comprises inserting the content into the page.

10. (Previously Presented) The method of claim 9, wherein processing the page comprises interpreting the page, including creating a document structure, wherein instantiating the instance of the element behavior component comprises creating a document fragment including content, and wherein inserting the content into the page comprises inserting the document fragment into the document structure.

11. (Previously Presented) The method of claim 1, wherein processing the page comprises interpreting the page, including creating a document structure, and wherein instantiating the instance of the element behavior component comprises,
creating a document fragment; and
inserting the document fragment into the document structure.

12. (Previously Presented) The method of claim 1, wherein processing the page comprises interpreting the page, including creating a document structure, and wherein instantiating the instance of the element behavior component comprises,

creating a document fragment; and

maintaining the document fragment separate from the document structure.

13. (Original) The method of claim 12, wherein the element comprises a pointer to the document fragment.

14. (Original) The method of claim 13, wherein the document fragment comprises content, and wherein interpreting the page comprises inserting the content into the page.

15. (Previously Presented) The method of claim 14, wherein inserting the content into the page comprises inserting the content into a position corresponding to a location of the element in the page.

16. (Previously Presented) The method of claim 1, wherein the element behavior component comprises script.

17. (Previously Presented) The method of claim 16, wherein the element behavior component comprises an HTC file.

18. (Currently Amended) In a computer system a computer program product that uses ~~dynamic hypertext a~~ markup language (~~DHTML~~) with a behavior component that enhances an element's initial behavior, a computer program product for implementing a method of synchronously binding the behavior component to the element in order to prevent the behavior from being detached there from ~~and to~~, promote predictability in the behavior, or reduce the need to add event-handling functions to check to see if the component has been downloaded and initialized, the computer program product comprising one or more computer readable media having stored thereon computer executable instructions that, when executed by a processor, can cause the distributed messaging system to perform the following:

receive at a browser application a page for processing and displaying one or more elements therein;

automatic initial process of the page ~~to create a document structure that includes one or more elements, including by~~ parsing the page and interpreting the page via the browser, the page further comprising an import instruction to instantiate an element behavior component that is coded in a DHTML, which encapsulates specific functionality or behavior on the page for an element of the one or more elements;

upon the automatic initial process of the import instruction of the page and before interpreting the element in the page, instantiate the element behavior component ~~in accordance with the instruction while parsing the page, wherein the instantiation of the element occurs before interpreting the one or more elements within the page in order to synchronously bind the instantiated instance of the element behavior component to the one or more elements by making the specific functionality or behavior immediately and declaratively available, and wherein the instantiation of the behavior component creates a document fragment;~~ and

upon processing of the element based on the document fragment created, modify an initial behavior of the one or more elements within the document structure with the instance of the element behavior previously instantiated.

19. (Currently Amended) The computer program product of claim 18, wherein the element behavior is a document fragment and the import instruction comprises a pointer to the document fragment.

20. (Currently Amended) The computer program product of claim 19, wherein the instantiation of the element behavior ~~processing the page~~ comprises downloading the document fragment and creating an instance thereof prior to applying the functionality or behavior or functionality of the element behavior component to the element.

21. (Currently Amended) The computer program product of claim 19, wherein the document fragment comprises content, and wherein the instantiation of the element behavior when parsing ~~processing the page~~ comprises inserting the content into the page.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Currently Amended) In a computer system that uses ~~dynamic-hypertext~~a markup language (~~DHTML~~) with a behavior component that enhances an element's ~~initial~~ behavior, a tangible computer-readable medium for a web page that synchronously binds the behavior component to the element in order to prevent the behavior from being detached there from, ~~and to promote predictability in the behavior, or reduce the need to add event-handling functions to check to see if the component has been downloaded and initialized,~~ the computer-readable medium comprising:

an element behavior component coded as a file or binary component separate from in a DHTML~~a page that comprises elements for display, which the element behavior component encapsulating~~es specific functionality or behavior for an element within on a the page;

a namespace declaration used to ensure that the element behavior component has a unique qualifier;

an import instruction component in the page for calling an instantiation of the element behavior component, which creates an instance thereof during an initial automatic parsing of the page for importing the element behavior into the namespace declared; and

an element in the page ~~that includes an initial behavior that references the namespace such that upon parsing the element, which is modified by the instance of the element behavior component such that during the parsing of the page by a browser, the element synchronously binds with the an instance of the element behavior component.~~

26. (Previously Presented) The computer-readable medium of claim 25, wherein the element behavior component comprises an instruction component configured such that during the parsing of the page, static content within the element is not parsed.

27. (Original) The computer-readable medium of claim 26, further comprising an executable file for accessing the content within the element.

28. (Original) The computer-readable medium of claim 27, wherein the executable file comprises script.

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (New) The method of claim 1, wherein the element behavior is a dynamic hypertext markup language (DHTML) component.

33. (New) The method of claim 1, wherein the import instruction comprises a tag of type `<? import>`.

34. (New) In a computer system that uses a markup language with a behavior component that enhances an element's behavior, a method of synchronously binding the behavior component to the element in order to prevent the behavior from being detached there from, promote predictability in the behavior, or reduce the need to add event-handling functions to check to see if the component has been downloaded and initialized, the method comprising:

receiving at a browser application an HTML page for processing and displaying one or more elements declared therein, the page comprising an import tag, which is an import instruction for importing element behavior into a namespace declared and associated with the import tag, wherein the namespace is used to ensure that the element behavior has a unique qualifier;

upon an initial automatic parsing of the import tag within the page, processing the import instruction for subsequently linking implementation of the element behavior with an element defined within the body of the page by using the namespace as part of the label for the element, wherein the element behavior is a file or binary behavior component separate from the one or more elements within the page and encapsulates specific functionality or behavior for the element defined thereby; and

upon parsing of the import instruction, suspending one or more other threads, activities, or both until the contents of the element behavior have been downloaded, allowing the element behavior to be available declaratively to bind synchronously to the element; and

prior to processing the element defined by the downloaded element behavior, producing an instance of the element behavior making the specific functionality immediately and declaratively available;

upon further parsing of the page, identifying that label for the element comprises the namespace; and

based on the identification that the label for the element comprises the namespace, attaching the instance of the element behavior produced to the element, thereby synchronously binding the element behavior to the element.

35. (New) The method of claim 34, wherein the namespace is the prefix of the label for the element.

36. (New) The method of claim 35, wherein the label for the element uses a syntax `<namespace:tagname>`.

37. (New) The method of claim 36, wherein the import tag identifying the import instruction is `<? import>`, which when parsed produces the instance of the element behavior.

38. (New) In a computer system that uses hypertext markup language with behavior components that enhance an element's behavior, a method of providing a visual representation that the behavior component may provide to a page so that the structure of the behavior component display is transparent to primary document to which the behavior component is linked, but the content of the behavior component display may be displayed in the primary document, the method comprising:

- displaying a primary document that includes an element and a view link, which provides a pointer to a behavior component of the element for enhancing the functionality or behavior of a component when the primary document is parsed at a web browser and an instance of the behavior component and the element subsequently rendered therein;

- using the pointer to retrieve the behavior component display;

- identifying that the behavior component display includes a declaration for setting the view link linking the file

- rendering the behavior component display within the primary document, without incorporating the elements of the encapsulated behavior component display into the primary document structure.

39. (New) The method of claim 38, wherein the behavior component comprises one or more of a file, a binary structure, an HTML component (HTC) document, a document fragment, or a document created from a uniform resource locator.

40. (New) In a computer system that uses hypertext markup language (HTML) with behavior components, a method for increasing the speed at which a web page loads by using lightweight HTML components in an implementation of behaviors for elements, the method comprising:

receiving at an HTML renderer a document that includes a lightweight attribute for allowing content within the document to be ignored;

identifying that the lightweight attribute is active, which instructs the HTML render that the document does not include static content; and

based on the activation of the lightweight attribute, not parsing HTML content in the file.

41. (New) The method of claim 40, wherein based on the activation of the lightweight attribute, a document tree is also not built for the document.

42. (New) The method of claim 40, wherein even though the static content of the document is not parsed, other supported tags in the document are parsed and acted upon.

43. (New) The method of claim 42, wherein the tags that are supported include one or more of: <public:component>, <?import>, <public:property>, <public:method>, <public:attach>, <public:defaults>, <scripts>, or <html>.

44. (New) In a computer system that uses hypertext markup language (HTML) with behavior components, a method of permitting a web page designer to add content between starting and ending element tags that is not parsed, but accessible using script by using a literal content component, the method comprising:

receiving at an HTML renderer a document that includes a plurality of elements;

upon parsing of the document, identifying that at least one of the plurality of elements has been implemented with a literal content attribute with content defined between element tags thereof;

not parsing the content within the element tags;

providing script or other code separate from the parsing of the document by the renderer for accessing the content within the element tags; and

using the script or other code to access and act upon the content within the element tags.

45. (New) The method of claim 44, wherein the other code is an application program interface.